

October 20

Goals for tonight

1. be able to calculate percentiles
2. be able to display data with
 - > bar graph, line graph, pie chart
3. be able to write a survey

1. Warm-Up

We have 10 numbers

3 7 8 10 12 16 18 19 23 25

What number is in the 2nd position? 7

We have a different name for this. What is

0.2 10? 2

Hmmm.... This is called the 20th percentile!

Let's break this down into some small steps:

1.) Order our numbers from smallest to largest

~~8, 8, 8, 7, 4, 2, 8, 10, 18, 23, 17, 29, 14~~
~~3, 3, 4, 5, 6, 28, 9, 10, 14, 15, 17, 23, 29~~

2.) Count the total number of numbers. 14

3.) Figure out what decimal we need to multiply by

If we want to find the 40th percentile 0.4

If we want to find the 75th percentile 0.75

4.) Figure out what position you are looking for.

40th: $0.4 \times 14 = 5.6 \Rightarrow$ Position 6

75th: $0.75 \times 14 = 10.5 \Rightarrow$ Position 11

5.) Find the answer in your list!

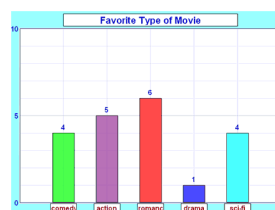
Tell a partner how to find a percentile.

30th percentile 3, 6, 9, 4, 7, 8, 3, 4, 5

$$\begin{aligned} 0.3 \times 9 \\ = 2.7 \\ = 3 \end{aligned}$$

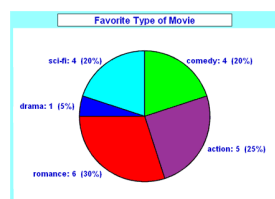
3, 3, 4, 4, 5, 4, 7, 8, 9
 ↑
 30th

2. Warm-Up



What can you tell me about this graph

Bar graph
 Categories

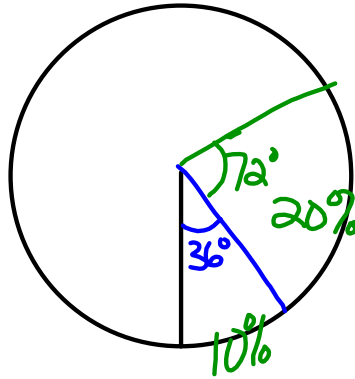


What can you tell me about this graph

Pie chart
 Circle graph

Making a Pie Chart

Colour	Percent	Total Number of Degrees	
Blue	0.1 10%	$0.1 \times 360^\circ = 36^\circ$	
Green	0.2 20%	$0.2 \times 360 = 72^\circ$	



- 1.) Choose topic
- 2.) Choose sample
- 3.) Get approval
- 4.) Write 10 question survey